

REMARKS/ARGUMENTS

In amended claim 1, Applicant removes recitation that the sacrificial layer is chemically inert to the low-K dielectric material.

However, recitation that the fill-in material and the antireflective material have different material properties is retained in amended claim 1. Applicant respectfully submits that support for the difference in material properties between the fill-in material and the antireflective material can be found in the Applicant's specification where it is described in a first instance that the fill-in material is any material that does not react with contaminants from the low-K dielectric material (page 6, paragraph 2, lines 19-25), in a second instance that the via is filled with BARC or other fill-in material (page 8, paragraph 2, lines 4-6), and in a third instance that the via is filled with any fill-in material that does not react with the contaminants from the low-K material (page 9, paragraph 1, lines 15-18).

In addition, claim 1 requires the sacrificial layer to be of a thickness of between 800 to 2000 angstroms. In Applicant's specification, the sacrificial layer is described as conformal BARC of thickness 800 to 2000 angstroms (page 6, paragraph 2, lines 27-28) as shown in Figure 5. The sacrificial layer is further shown in Figure 4 as being thicker than the sacrificial layer of Figure 5.

Applicant therefore respectfully submits that the amendments are appropriately supported and that no new matter is added by the amendment.

To those skilled in the art, conventional BARC thickness generally falls within a range of 500 to 600 angstrom (as described in the cite prior art documents). In the cited prior art documents, an additional layer of hard mask (as described in US 6,323,123) or polymer (US 6,569,760) to form a barrier between the low-K dielectric material and the photoresist.


Therefore, the conventional BARC thickness is insufficient to create a physical barrier for preventing photoresist poisoning. In order to effectively prevent photoresist poisoning without an additional barrier layer between the low-K dielectric material and the photoresist, the BARC layer must be sufficiently thick as described in amended claim 1 and the specification of Applicant's invention.

Therefore, Applicant submits that amended claim 1 and claims dependent thereon are distinct from and not anticipated by the cited prior art documents.

If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Conley Rose Deposit Account Number 03-2769 and enter any time extension(s) necessary to prevent this case from being abandoned.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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